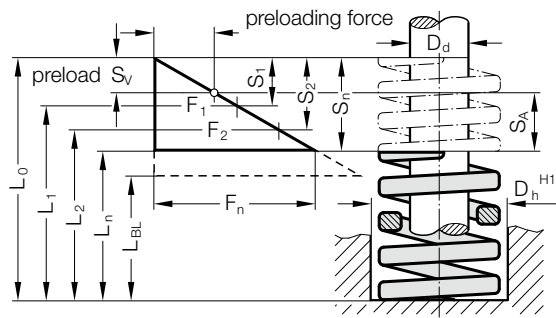


# HIGH PERFORMANCE COMPRESSION SPRING, SF, COLOUR GREEN, DIN ISO 10243

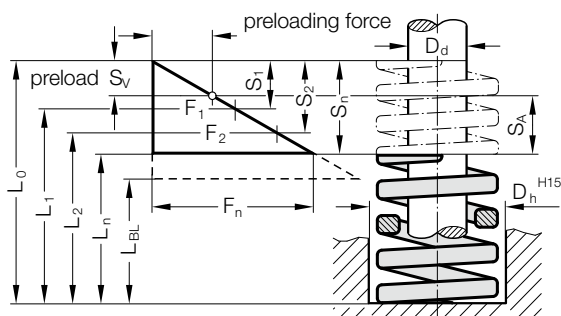


- $D_h$  = diameter of guide sleeve
- $D_d$  = diameter of guide pin
- $L_0$  = free length of spring
- $L_1...L_n$  = length of loaded spring (mm) as related to spring forces  $F_1...F_n$
- $L_{BL}$  = length of compacted spring (i.e. wire-to-wire)
- $F_1...F_n$  = forces (N) as related to length of spring  $L_1...L_n$
- $S_{V1}...S_{V7}$  = recommend. preload. compression, as relat. to compress.  $S_1...S_7$
- $S_1...S_n$  = compr. as related to spring forces  $F_1...F_n$
- $R$  = spring rate (N/mm)
- $S_{A1}...S_{A7}$  = working stroke (mm)

## 241.14. High performance compression spring, SF, Colour Green, DIN ISO 10243

Order No	$D_h$	$D_d$	$L_0$	$R$	45% $S_1$	$S_{V1}$	$S_{A1}$	$F_1$	62% $S_2$	$S_{V2}$	$S_{A2}$	$F_2$	80% $S_3$	$S_{V3}$	$S_{A3}$	$F_3$	100% $S_n$	$F_n$
241.14.10.025	10	5	25	11	5.6	1.6	4	62	7.8	3.8	4	85	10	7.2	2.8	110	12.5	138
241.14.10.032	10	5	32	8.5	7.2	2.1	5.1	61	9.9	4.8	5.1	84	12.8	9.3	3.5	109	16	136
241.14.10.038	10	5	38	6.8	8.6	2.5	6.1	58	11.8	5.7	6.1	80	15.2	11	4.2	103	19	129
241.14.10.044	10	5	44	6	9.9	2.9	7	59	13.6	6.6	7	82	17.6	12.8	4.8	106	22	132
241.14.10.051	10	5	51	5	11.5	3.3	8.2	57	15.8	7.6	8.2	79	20.4	14.8	5.6	102	25.5	128
241.14.10.064	10	5	64	4.1	14.4	4.2	10.2	59	19.8	9.6	10.2	81	25.6	18.6	7	105	32	131
241.14.10.076	10	5	76	3.6	17.1	4.9	12.2	62	23.6	11.4	12.2	85	30.4	22	8.4	109	38	137
241.14.10.305	10	5	305	0.9	68.6	19.8	48.8	62	94.6	45.8	48.8	85	122	88.4	33.6	110	152.5	137
241.14.13.025	12.5	6.3	25	21	5.6	1.6	4	118	7.8	3.8	4	163	10	7.2	2.8	210	12.5	262
241.14.13.032	12.5	6.3	32	16.4	7.2	2.1	5.1	118	9.9	4.8	5.1	163	12.8	9.3	3.5	210	16	262
241.14.13.038	12.5	6.3	38	13.6	8.6	2.5	6.1	116	11.8	5.7	6.1	160	15.2	11	4.2	207	19	258
241.14.13.044	12.5	6.3	44	12.1	9.9	2.9	7	120	13.6	6.6	7	165	17.6	12.8	4.8	213	22	266
241.14.13.051	12.5	6.3	51	10.3	11.5	3.3	8.2	118	15.8	7.6	8.2	163	20.4	14.8	5.6	210	25.5	263
241.14.13.064	12.5	6.3	64	7.6	14.4	4.2	10.2	109	19.8	9.6	10.2	151	25.6	18.6	7	195	32	243
241.14.13.076	12.5	6.3	76	6.3	17.1	4.9	12.2	108	23.6	11.4	12.2	148	30.4	22	8.4	192	38	239
241.14.13.089	12.5	6.3	89	5.4	20	5.8	14.2	108	27.6	13.4	14.2	149	35.6	25.8	9.8	192	44.5	240
241.14.13.305	12.5	6.3	305	1.6	68.6	19.8	48.8	110	94.6	45.8	48.8	151	122	88.4	33.6	195	152.5	244
241.14.16.025	16	8	25	29	5.6	1.6	4	163	7.8	3.8	4	225	10	7.2	2.8	290	12.5	362
241.14.16.032	16	8	32	22.9	7.2	2.1	5.1	165	9.9	4.8	5.1	227	12.8	9.3	3.5	293	16	366
241.14.16.038	16	8	38	19.3	8.6	2.5	6.1	165	11.8	5.7	6.1	227	15.2	11	4.2	293	19	367
241.14.16.044	16	8	44	17.1	9.9	2.9	7	169	13.6	6.6	7	233	17.6	12.8	4.8	301	22	376
241.14.16.051	16	8	51	14	11.5	3.3	8.2	161	15.8	7.6	8.2	221	20.4	14.8	5.6	286	25.5	357
241.14.16.064	16	8	64	10.7	14.4	4.2	10.2	154	19.8	9.6	10.2	212	25.6	18.6	7	274	32	342
241.14.16.076	16	8	76	9	17.1	4.9	12.2	154	23.6	11.4	12.2	212	30.4	22	8.4	274	38	342
241.14.16.089	16	8	89	7.3	20	5.8	14.2	146	27.6	13.4	14.2	201	35.6	25.8	9.8	260	44.5	325
241.14.16.102	16	8	102	6.8	23	6.6	16.3	156	31.6	15.3	16.3	215	40.8	29.6	11.2	277	51	347
241.14.16.305	16	8	305	2.3	68.6	19.8	48.8	158	94.6	45.8	48.8	217	122	88.4	33.6	281	152.5	351
241.14.20.025	20	10	25	55.8	5.6	1.6	4	314	7.8	3.8	4	432	10	7.2	2.8	558	12.5	698
241.14.20.032	20	10	32	45	7.2	2.1	5.1	324	9.9	4.8	5.1	446	12.8	9.3	3.5	576	16	720
241.14.20.038	20	10	38	36	8.6	2.5	6.1	308	11.8	5.7	6.1	424	15.2	11	4.2	547	19	684
241.14.20.044	20	10	44	30	9.9	2.9	7	297	13.6	6.6	7	409	17.6	12.8	4.8	528	22	660
241.14.20.051	20	10	51	24.5	11.5	3.3	8.2	281	15.8	7.6	8.2	387	20.4	14.8	5.6	500	25.5	625
241.14.20.064	20	10	64	19.2	14.4	4.2	10.2	276	19.8	9.6	10.2	381	25.6	18.6	7	492	32	614
241.14.20.076	20	10	76	16	17.1	4.9	12.2	274	23.6	11.4	12.2	377	30.4	22	8.4	486	38	608
241.14.20.089	20	10	89	14	20	5.8	14.2	280	27.6	13.4	14.2	386	35.6	25.8	9.8	498	44.5	623
241.14.20.102	20	10	102	12	23	6.6	16.3	275	31.6	15.3	16.3	379	40.8	29.6	11.2	490	51	612
241.14.20.115	20	10	115	10.9	25.9	7.5	18.4	282	35.6	17.2	18.4	389	46	33.4	12.6	501	57.5	627
241.14.20.127	20	10	127	9.5	28.6	8.3	20.3	271	39.4	19	20.3	374	50.8	36.8	14	483	63.5	603
241.14.20.139	20	10	139	8.4	31.3	9	22.2	263	43.1	20.8	22.2	362	55.6	40.3	15.3	467	69.5	584
241.14.20.152	20	10	152	7.5	34.2	9.9	24.3	256	47.1	22.8	24.3	353	60.8	44.1	16.7	456	76	570
241.14.20.305	20	10	305	4	68.6	19.8	48.8	274	94.6	45.8	48.8	378	122	88.4	33.6	488	152.5	610
241.14.25.025	25	12.5	25	105	5.6	1.6	4	591	7.8	3.8	4	814	10	7.2	2.8	1050	12.5	1312
241.14.25.032	25	12.5	32	80.3	7.2	2.1	5.1	578	9.9	4.8	5.1	797	12.8	9.3	3.5	1028	16	1285
241.14.25.038	25	12.5	38	62	8.6	2.5	6.1	530	11.8	5.7	6.1	730	15.2	11	4.2	942	19	1178
241.14.25.044	25	12.5	44	52.9	9.9	2.9	7	524	13.6	6.6	7	722	17.6	12.8	4.8	931	22	1164
241.14.25.051	25	12.5	51	44	11.5	3.3	8.2	505	15.8	7.6	8.2	696	20.4	14.8	5.6	898	25.5	1122
241.14.25.064	25	12.5	64	35.2	14.4	4.2	10.2	507	19.8	9.6	10.2	698	25.6	18.6	7	901	32	1126
241.14.25.076	25	12.5	76	28	17.1	4.9	12.2	479	23.6	11.4	12.2	660	30.4	22	8.4	851	38	1064
241.14.25.089	25	12.5	89	24	20	5.8	14.2	481	27.6	13.4	14.2	662	35.6	25.8	9.8	854	44.5	1068
241.14.25.102	25	12.5	102	21.1	23	6.6	16.3	484	31.6	15.3	16.3	667	40.8	29.6	11.2	861	51	1076
241.14.25.115	25	12.5	115	18.7	25.9	7.5	18.4	484	35.6	17.2	18.4	667	46	33.4	12.6	860	57.5	1075
241.14.25.127	25	12.5	127	16.7	28.6	8.3	20.3	477	39.4	19	20.3	657	50.8	36.8	14	848	63.5	1060
241.14.25.139	25	12.5	139	15.3	31.3	9	22.2	479	43.1	20.8	22.2	659	55.6	40.3	15.3	851	69.5	1063
241.14.25.152	25	12.5	152	14	34.2	9.9	24.3	479	47.1	22.8	24.3	660	60.8	44.1	16.7	851	76	1064
241.14.25.178	25	12.5	178	12.5	40	11.6	28.5	501	55.2	26.7	28.5	690	71.2	51.6	19.6	890	89	1112
241.14.25.203	25	12.5	203	10.4	45.7	13.2	32.5	475	62.9	30.4	32.5	654	81.2	58.9	22.3	844	101.5	1056
241.14.25.305	25	12.5	305	7	68.6	19.8	48.8	480	94.6	45.8	48.8	662	122	88.4	33.6	854	152.5	1068

# HIGH PERFORMANCE COMPRESSION SPRING, SF, COLOUR GREEN, DIN ISO 10243



- $D_h$  = diameter of guide sleeve
- $D_d$  = diameter of guide pin
- $L_0$  = free length of spring
- $L_1...L_n$  = length of loaded spring (mm) as related to spring forces  $F_1...F_n$
- $L_{BL}$  = length of compacted spring (i.e. wire-to-wire)
- $F_1...F_n$  = forces (N) as related to length of spring  $L_1...L_n$
- $S_{V1}...S_{V7}$  = recommend. preload. compression, as relat. to compress.  $S_1...S_7$
- $S_1...S_n$  = compr. as related to spring forces  $F_1...F_n$
- $R$  = spring rate (N/mm)
- $S_{A1}...S_{A7}$  = working stroke (mm)



## 241.14. High performance compression spring, SF, Colour Green, DIN ISO 10243

Order No	$D_h$	$D_d$	$L_0$	$R$	45%				62%				80%				100%	
					$S_1$	$S_{V1}$	$S_{A1}$	$F_1$	$S_2$	$S_{V2}$	$S_{A2}$	$F_2$	$S_3$	$S_{V3}$	$S_{A3}$	$F_3$	$S_n$	$F_n$
241.14.32.038	32	16	38	98	8.6	2.5	6.1	838	11.8	5.7	6.1	1154	15.2	11	4.2	1490	19	1862
241.14.32.044	32	16	44	79.5	9.9	2.9	7	787	13.6	6.6	7	1084	17.6	12.8	4.8	1399	22	1749
241.14.32.051	32	16	51	67	11.5	3.3	8.2	769	15.8	7.6	8.2	1059	20.4	14.8	5.6	1367	25.5	1708
241.14.32.064	32	16	64	53	14.4	4.2	10.2	763	19.8	9.6	10.2	1052	25.6	18.6	7	1357	32	1696
241.14.32.076	32	16	76	44	17.1	4.9	12.2	752	23.6	11.4	12.2	1037	30.4	22	8.4	1338	38	1672
241.14.32.089	32	16	89	37.2	20	5.8	14.2	745	27.6	13.4	14.2	1026	35.6	25.8	9.8	1324	44.5	1655
241.14.32.102	32	16	102	32	23	6.6	16.3	734	31.6	15.3	16.3	1012	40.8	29.6	11.2	1306	51	1632
241.14.32.115	32	16	115	29	25.9	7.5	18.4	750	35.6	17.2	18.4	1034	46	33.4	12.6	1334	57.5	1668
241.14.32.127	32	16	127	25	28.6	8.3	20.3	714	39.4	19	20.3	984	50.8	36.8	14	1270	63.5	1588
241.14.32.139	32	16	139	23	31.3	9	22.2	719	43.1	20.8	22.2	991	55.6	40.3	15.3	1279	69.5	1598
241.14.32.152	32	16	152	21.5	34.2	9.9	24.3	735	47.1	22.8	24.3	1013	60.8	44.1	16.7	1307	76	1634
241.14.32.178	32	16	178	18.2	40	11.6	28.5	729	55.2	26.7	28.5	1004	71.2	51.6	19.6	1296	89	1620
241.14.32.203	32	16	203	15.8	45.7	13.2	32.5	722	62.9	30.4	32.5	994	81.2	58.9	22.3	1283	101.5	1604
241.14.32.254	32	16	254	12.5	57.4	16.6	40.8	717	79	38.2	40.8	988	102	74	28	1275	127.5	1594
241.14.32.305	32	16	305	10.3	68.6	19.8	48.8	707	94.6	45.8	48.8	974	122	88.4	33.6	1257	152.5	1571
241.14.40.051	40	20	51	92	11.5	3.3	8.2	1056	15.8	7.6	8.2	1455	20.4	14.8	5.6	1877	25.5	2346
241.14.40.064	40	20	64	73	14.4	4.2	10.2	1051	19.8	9.6	10.2	1448	25.6	18.6	7	1869	32	2336
241.14.40.076	40	20	76	63	17.1	4.9	12.2	1077	23.6	11.4	12.2	1484	30.4	22	8.4	1915	38	2394
241.14.40.089	40	20	89	51	20	5.8	14.2	1021	27.6	13.4	14.2	1407	35.6	25.8	9.8	1816	44.5	2270
241.14.40.102	40	20	102	45	23	6.6	16.3	1033	31.6	15.3	16.3	1423	40.8	29.6	11.2	1836	51	2295
241.14.40.115	40	20	115	39.6	25.9	7.5	18.4	1025	35.6	17.2	18.4	1412	46	33.4	12.6	1822	57.5	2277
241.14.40.127	40	20	127	36	28.6	8.3	20.3	1029	39.4	19	20.3	1417	50.8	36.8	14	1829	63.5	2286
241.14.40.139	40	20	139	32	31.3	9	22.2	1001	43.1	20.8	22.2	1379	55.6	40.3	15.3	1779	69.5	2224
241.14.40.152	40	20	152	28	34.2	9.9	24.3	958	47.1	22.8	24.3	1319	60.8	44.1	16.7	1702	76	2128
241.14.40.178	40	20	178	25.2	40	11.6	28.5	1009	55.2	26.7	28.5	1391	71.2	51.6	19.6	1794	89	2243
241.14.40.203	40	20	203	21.8	45.7	13.2	32.5	996	62.9	30.4	32.5	1372	81.2	58.9	22.3	1770	101.5	2213
241.14.40.254	40	20	254	17	57.4	16.6	40.8	975	79	38.2	40.8	1344	102	74	28	1734	127.5	2168
241.14.40.305	40	20	305	14.8	68.6	19.8	48.8	1016	94.6	45.8	48.8	1399	122	88.4	33.6	1806	152.5	2257
241.14.50.064	50	25	64	156	14.4	4.2	10.2	2246	19.8	9.6	10.2	3095	25.6	18.6	7	3994	32	4992
241.14.50.076	50	25	76	125	17.1	4.9	12.2	2138	23.6	11.4	12.2	2945	30.4	22	8.4	3800	38	4750
241.14.50.089	50	25	89	109	20	5.8	14.2	2183	27.6	13.4	14.2	3007	35.6	25.8	9.8	3880	44.5	4850
241.14.50.102	50	25	102	94	23	6.6	16.3	2157	31.6	15.3	16.3	2972	40.8	29.6	11.2	3835	51	4794
241.14.50.115	50	25	115	81	25.9	7.5	18.4	2096	35.6	17.2	18.4	2888	46	33.4	12.6	3726	57.5	4658
241.14.50.127	50	25	127	71	28.6	8.3	20.3	2029	39.4	19	20.3	2795	50.8	36.8	14	3607	63.5	4508
241.14.50.139	50	25	139	66.5	31.3	9	22.2	2080	43.1	20.8	22.2	2865	55.6	40.3	15.3	3697	69.5	4622
241.14.50.152	50	25	152	60	34.2	9.9	24.3	2052	47.1	22.8	24.3	2827	60.8	44.1	16.7	3648	76	4560
241.14.50.178	50	25	178	52	40	11.6	28.5	2083	55.2	26.7	28.5	2869	71.2	51.6	19.6	3702	89	4628
241.14.50.203	50	25	203	44	45.7	13.2	32.5	2010	62.9	30.4	32.5	2769	81.2	58.9	22.3	3573	101.5	4466
241.14.50.254	50	25	254	35	57.4	16.6	40.8	2008	79	38.2	40.8	2767	102	74	28	3570	127.5	4462
241.14.50.305	50	25	305	28.5	68.6	19.8	48.8	1956	94.6	45.8	48.8	2695	122	88.4	33.6	3477	152.5	4346
241.14.63.076	63	38	76	189	17.1	4.9	12.2	3232	23.6	11.4	12.2	4453	30.4	22	8.4	5746	38	7182
241.14.63.089	63	38	89	158	20	5.8	14.2	3164	27.6	13.4	14.2	4359	35.6	25.8	9.8	5625	44.5	7031
241.14.63.102	63	38	102	131	23	6.6	16.3	3006	31.6	15.3	16.3	4142	40.8	29.6	11.2	5345	51	6681
241.14.63.115	63	38	115	116	25.9	7.5	18.4	3002	35.6	17.2	18.4	4135	46	33.4	12.6	5336	57.5	6670
241.14.63.127	63	38	127	103	28.6	8.3	20.3	2943	39.4	19	20.3	4055	50.8	36.8	14	5232	63.5	6540
241.14.63.152	63	38	152	84.3	34.2	9.9	24.3	2883	47.1	22.8	24.3	3972	60.8	44.1	16.7	5125	76	6407
241.14.63.178	63	38	178	71.5	40	11.6	28.5	2864	55.2	26.7	28.5	3945	71.2	51.6	19.6	5091	89	6364
241.14.63.203	63	38	203	61.7	45.7	13.2	32.5	2818	62.9	30.4	32.5	3883	81.2	58.9	22.3	5010	101.5	6263
241.14.63.254	63	38	254	47	57.4	16.6	40.8	2697	79	38.2	40.8	3715	102	74	28	4794	127.5	5992
241.14.63.305	63	38	305	38.2	68.6	19.8	48.8	2621	94.6	45.8	48.8	3612	122	88.4	33.6	4660	152.5	5826